

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-294. (Canceled).

295. (New) In a method for treating tissue in a human with thymosin beta 4 (T β 4), the method comprising targeting cells of said tissue to be treated prior to administration of said T β 4, then administering said T β 4 to said targeted tissue so as to promote repair and revitalization of said tissue, wherein said T β 4 is administered in an amount effective to promote repair and revitalize said tissue.

296. (New) The method of claim 295, wherein said T β 4 is administered topically.

297. (New) The method of claim 295, wherein said T β 4 is locally or directly administered to said tissue.

298. (New) The method of claim 295, wherein said T β 4 is administered systemically.

299. (New) The method of claim 295, wherein said tissue is scar tissue.

300. (New) The method of claim 295, wherein said tissue is fibrotic tissue.

301. (New) The method of claim 295, wherein said tissue is selected from the group consisting of a skin tissue, a dermal tissue, an epidermal tissue, an eye tissue, a corneal tissue, a retinal tissue, a urogenital tissue, a gastro-intestinal tissue, a

cardiovascular tissue, a muscle tissue, a connective tissue, a neural tissue, a bone tissue, a cartilage tissue, a breast tissue, a central nervous system tissue, a pancreatic tissue, a liver tissue, a reticulo-endothelial system tissue and an endometrial tissue.

302. (New) The method of claim 301, wherein said tissue is a skin tissue.

303. (New) The method of claim 301, wherein said tissue is an eye tissue.

304. (New) The method of claim 295, wherein said T β 4 is synthetic T β 4.

305. (New) The method of claim 295, wherein said human is suffering from a condition selected from the group consisting of impaired wound healing and a fibrotic disorder.

306. (New) The method of claim 305, wherein said fibrotic disorder is selected from a musculo-skeletal disorder, a neurodegenerative disease, a bone disease or a cardiovascular disease.

307. (New) The method of claim 305, wherein said impaired wound healing is due to a cell proliferative disorder, atherosclerosis or ischemia.

308. (New) The method of claim 295, wherein said human is suffering from diabetes.

309. (New) The method of claim 295, wherein said human is suffering from a wound.

310. (New) The method of claim 295, wherein said human is suffering from a burn, an ulcer, a skin lesion, skin damage, corneal damage or retinal damage.

311. (New) The method of claim 310, wherein said ulcer is a pressure ulcer.

312. (New) The method of claim 311, wherein said ulcer is a diabetic ulcer.

313. (New) The method of claim 295, which further comprises contacting the site of the wound with an agent which promotes wound healing.

314. (New) The method of claim 295, wherein said T β 4 is administered in combination with pharmaceutically acceptable carrier or vehicle.

315. (New) The method of claim 314, wherein said pharmaceutically acceptable carrier is selected from the group consisting of a gel, a cream, a paste, a lotion, a spray, a suspension, a dispersion, a salve, a hydrogel and an ointment.

316. (New) The method of claim 314, wherein said pharmaceutically acceptable carrier comprises a preservative, an antioxidant or a chelating agent.

317. (New) The method of claim 295, which further comprises administering to said tissue a polypeptide selected from the group consisting of gelsolin, vitamin D binding protein, profilin, cofilin, depactin, DNaseI, villin, fragmin, severin, capping protein, beta-actinin, acumentin, transforming growth factor beta, IGF, IGF-1, IGF-2, IL-1, PDGF, FGF, KGF, VEGF.

318. (New) The method of claim 298, wherein said systemic administering to said human is by injection, by local injection, by catheter, by aerosol, by inhalation, by osmotic pump, by implantable infusion system, surgically, orally, intranasally, intravenously, intraperitoneally, intramuscularly, subcutaneously or transdermally.

319. (New) The method of claim 295, wherein said composition is intraperitoneally administered to said human.

320. (New) The method of claim 314, wherein said pharmaceutically acceptable carrier or vehicle is for parenteral administration.

321. (New) The method of claim 314, wherein said pharmaceutically acceptable carrier is a solution, suspension or emulsion.

322. (New) The method of claim 321, wherein said carrier comprises a parenteral vehicle selected from the group consisting of saline, sodium chloride solution, Ringer's dextrose, dextrose and sodium chloride, sterile water, polyethylene glycol, vegetable oil, liposomes, an alcoholic/aqueous solution, an alcoholic/aqueous emulsion and an alcoholic/aqueous suspension.

323. (New) The method of claim 320, wherein said pharmaceutically acceptable carrier comprises a preservative, an antioxidant or a chelating agent.

324. (New) The method of claim 295, wherein said administration accelerates repair of said tissue compared to untreated tissue.